

First ISCCP Regional
Experiment (FIRE) Cirrus
2 High-Resolution
Interferometer Sounder
(HIS) Langley DAAC Data
Set Document



Summary:

The First ISCCP Regional Experiments have been designed to improve data products and cloud/radiation parameterizations used in general circulation models (GCMs). Specifically, the goals of FIRE are (1) to improve basic understanding of the interaction of physical processes in determining life cycles of cirrus and marine stratocumulus systems and the radiative properties of these clouds during their life cycles and (2) to investigate the interrelationships between the ISCCP data, GCM parameterizations, and higher space and time resolution cloud data.

To-date, four intensive field-observation periods were planned and executed: a cirrus IFO (October 13 - November 2, 1986); a marine stratocumulus IFO off the southwestern coast of California (June 29 - July 20, 1987); a second cirrus IFO in southeastern Kansas (November 13 - December 7, 1991); and a second marine stratocumulus IFO in the eastern North Atlantic Ocean (June 1 - June 28, 1992). Each mission combined coordinated satellite, airborne, and surface observations with modeling studies to investigate the cloud properties and physical processes of the cloud systems.

This document provides information for the FIRE_CI2_HIS data set.

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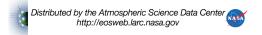
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1. Data Set Overview:

Data Set Identification:

FIRE_CI2_HIS:

First ISCCP Regional Experiment (FIRE) Cirrus 2 High- Resolution Interferometer Sounder (HIS) Data (FIRE_CI2_HIS)



Data Set Introduction:
The High-resolution Interferometer Sounder (HIS) was flown on board the NASA ER-2 aircraft during FIRE Cirrus 2 in Coffeyville, Kansas The HIS measured upwelling calibrated radiances and was positioned to to capture a nadir view along the ER-2 flight tracks.
Objective/Purpose:
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Summary of Parameters:
Radiance
Discussion:
Related Data Sets:
2. Investigator(s):
Investigator(s) Name and Title:
William Smith
Title of Investigation:
First ISCCP Regional Experiment (FIRE)
Contact Information:
William Smith Space Science and Engineering Center University of Wisconsin - Madison 1225 W. Dayton Street Madison, WI 53706 USA Phone: (608) 263-4085 FAX: E-mail: bills@ssec.wisc.edu
3. Theory of Measurements:
4. Equipment:
Sensor/Instrument Description:
Collection Environment:
Source/Platform:
NASA ER2

Key Variables:

Source/Platform Mission Objectives:

Radiance

Principles of Ope	eration:				
Sensor/Instrume	nt Measureme	ent Geometry:			
Manufacturer of	Sensor/Instru	ment:			
Sensor/Instrume	nt:				
HIS					
Calibration:					
Specifications:					
Tolerance:					
Frequency of Ca	libration:				
Other Calibration	n Information:				
5. Data Acq	uisition M	ethods:			
6. Observat	ions:				
Data Notes:					
Field Notes:					
r icia Notes.					
7. Data Des	cription:				
Spatial Chara					
Spatial Coverage) :				
Data Set Name	Min Lat	Max Lat	Min Lon	Max Lon	
FIRE_CI2_HIS	27.57	38.63	-96.98	-90.73	

Spatial Coverage Map:

Spatial Resolution:

Grid Description:		
Temporal Chara	cteristics:	
Temporal Coverage	:	
Data Set Name	Begin Date	End Date
FIRE_CI2_HIS	11-26-1991	12-05-1991
Temporal Coverage	Мар:	
Temporal Resolution	n:	
•••		
Data Characteris	stics:	
Parameter/Variable:		
Variable Description	/Definition:	
Unit of Measuremen	t:	
Data Source:		
Data Range:		
Sample Data Rec	cord:	
8. Data Organ	ization:	
Data Granularity	:	
A general description	of data granularity as it	annlies to the IMS annears

9. Data Manipulations:

The data are in native binary format.

Data Format:

Projection:

Formulae:
Derivation Techniques and Algorithms:
Data Processing Sequence:
Processing Steps:
Processing Changes:
Calculations:
Special Corrections/Adjustments:
Calculated Variables:
Graphs and Plots:
Image files are not available for this data set.
10. Errors:
Sources of Error:
Quality Assessment:
Data Validation by Source:
Confidence Level/Accuracy Judgement:
Measurement Error for Parameters:
Additional Quality Assessments:
Data Verification by Data Center:
11. Notes:
Limitations of the Data:
Known Problems with the Data:

Distributed by the Atmospheric Science Data Center http://eosweb.larc.nasa.gov

Usage Guidance:

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Any Other Relevant Information about the Study:

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12. Application of the Data Set:

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13. Future Modifications and Plans:

There are no plans for future modifications of these data sets.

14. Software:

Software Description:

Sample read software is available for this data set.

Software Access:

The software can be obtained through the Langley DAAC. Please refer to the contact information below. The software can also be obtained at the same time the user is ordering this data set.

15. Data Access:

Contact Information:

Langley DAAC User and Data Services Office NASA Langley Research Center Mail Stop 157D Hampton, Virginia 23681-2199 USA

Telephone: (757) 864-8656 FAX: (757) 864-8807

E-mail: support-asdc@earthdata.nasa.gov

URL: http://eosweb.larc.nasa.gov

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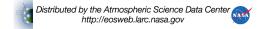
URL: http://eosweb.larc.nasa.gov

Procedures for Obtaining Data:

The Langley DAAC Information Management System (IMS) is an on-line system that features a graphical user interface (GUI) that allows to query the Langley DAAC data set holdings, to view pre-generated browse products, and to order specific data products. Users may also request data by letter, telephone, electronic mail (INTERNET), or personal visit.

The Langley DAAC User and Data Services (UDS) staff provides technical and operational support for users ordering data. The Langley DAAC Handbook is available in a postscript file through the IMS for users who want detailed information about the Langley DAAC holdings. Users may also obtain a copy by contacting:

Langley DAAC User and Data Services Office NASA Langley Research Center Mail Stop 157D



Hampton, Virginia 23681-2199

USA

Telephone: (757) 864-8656 FAX: (757) 864-8807

E-mail: support-asdc@earthdata.nasa.gov

URL: http://eosweb.larc.nasa.gov

Data Center Status/Plans:

The Langley DAAC will continue to archive this data. There are no plans to reprocess.

16. Output Products and Availability:

There are no output products available at this time.

17. References:

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18. Glossary of Terms:

EOSDIS Glossary.

19. List of Acronyms:

NASA - National Aeronautics Space Administration URL - Uniform Resource Locator

EOSDIS Acronyms.

20. Document Information:

Document Revision Date:

October 07, 1996; November 24, 1997

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Document ID:

Citation:

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Document Curator:

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